

WHAT IS CLAIMED:

1. A method of imparting drought resistance to plants comprising:
applying a hypersensitive response elicitor protein or
5 polypeptide in a non-infectious form to a plant under conditions effective to impart
drought resistance.

2. A method according to claim 1, wherein the hypersensitive
response elicitor protein or polypeptide is derived from *Erwinia*, *Pseudomonas*,
10 *Xanthomonas*, or *Phytophthora*.

3. A method according to claim 2, wherein the hypersensitive
response elicitor protein or polypeptide is derived from *Erwinia amylovora*, *Erwinia carotovora*, *Erwinia chrysanthemi*, and *Erwinia stewartii*.
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4. A method according to claim 2, wherein the hypersensitive
response elicitor protein or polypeptide is derived from *Pseudomonas syringae* or
Pseudomonas solancearum.

- 20 5. A method according to claim 2, wherein the hypersensitive
response elicitor protein or polypeptide is derived from a *Xanthomonas* species.

6. A method according to claim 2, wherein the hypersensitive
response elicitor protein or polypeptide is derived from a *Phytophthora* species.
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7. A method according to claim 1, wherein the plant is selected
from the group consisting of rice, wheat, barley, rye, cotton, sunflower, peanut, corn,
potato, sweet potato, bean pea, chicory, lettuce, endive, cabbage, cauliflower,
broccoli, turnip, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot,
30 squash, pumpkin, zucchini, cucumber, apple, pear, melon, strawberry, grape,
raspberry, pineapple, soybean, tobacco, tomato, sorghum, and sugarcane.

8. A method according to claim 1, wherein the plant is selected from the group consisting of rose, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

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9. A method according to claim 1, wherein said applying is carried out prior to a drought.

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